IOWA URBAN AND COMMUNITY FORESTRY COUNCIL

Community Trees

Winter 2004 *Volume 15, Issue 2*

The best time to plant a tree was twenty years ago. The second best time is now.

Help Wanted: 2005 Council Awards and Tree City USA Awards Upcoming

The Council would like to announce that the *2005 Iowa Tree City USA Community Forestry Awards Luncheon* will be held on April 7 at the Airport Holiday Inn, located in Des Moines. A primary function of the luncheon is to recognize the recipients of the Council Awards, as well as the communities that have qualified for the various Tree City USA awards.

First Lady Christie Vilsack speaking at the 2004 luncheon.

The Council Awards recognize individuals and groups that have made significant contributions to urban and community forestry, whether through improving the size and health of the community forests, increasing education and awareness, promoting advocacy, etc. Your help is needed in 1) identifying deserving individuals or groups, and 2) submitting a nomination. Not only is the nominee recognized, but the review committee also appreciates having a sufficient pool of nominees to choose from. The members of the Council hope that you will send in a nomination using the enclosed form and help to recognize those whose efforts have been outstanding. Nominations are due by February 16, 2005.

The National Arbor Day Foundation's "Tree City USA" award recognizes communities that have worked for the advancement of urban forestry and invested in the local tree resources. To become a *Tree City USA,* your community must:

(1) Possess either a city forester or an active city tree board

(2) Have a tree ordinance

(3) Annually spend at least $2 per capita for a community forestry program

(4) The mayor must issue a proclamation naming a day as "Arbor Day"

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Inside

President's Message

The planting of trees can be such an uplifting experience. For me, it might just be the opportunity to get my hands dirty. I do use a shovel, but I always feel compelled to sift through the clods checking out the earthworms. There's nothing like good Iowa topsoil. Of course, with most of my plantings done in urban soils, a person needs to be careful. You never know what you will find. But on those rare occasions when the topsoil is deep and black, digging a hole to plant a tree can be therapeutic.

Maybe it's a primal need to turn the soil and plant something that will grow to produce. With all of the genetic defects of the past, it is possible that a few productive genes survived. The urge to plant trees each spring seems to be eternal. And with all of the trees that we remove each year, planting is basically a necessity.

In recent years I have been planting more and more memorial trees. Many years ago we started a program where people who had recently lost a loved one could purchase a tree to be planted in a park, and have a plaque installed as a memorial. This has become a very popular practice and I am experiencing new feelings about tree planting. Many times the donor and family members gather around while the tree is being planted and ask questions about the particular tree. They convey how special the planting is to them and you know that they need this tree to survive as a living monument. Unlike a cemetery, these memorial trees are normally planted in a park that had an emotional connection to the deceased, either close to their home or someplace nice that they frequented for enjoyment. The surviving friends and family can visit the tree and recall happier times at the site.

This spring we planted a memorial tree for a young man who died in his mid-thirties. Though I didn't know the family, I did recognize their faces from restaurants and stores that we frequent. The donors were family friends from Texas and the parents were in attendance at the planting. I expressed my condolences for their loss and they asked about the tree. As we talked, I sensed the deep emotional tie they were making with the tree and their son. The park had been a common hangout close to home. After we finished the planting the parents lingered, and I can only imagine their thoughts. I wouldn't be surprised to see them visit the site and monitor the tree's growth over the years. These memorial trees are special and with each planting we take on a new responsibility. Over the years we have had to replace a few trees that had not grown as well as expected. It becomes important to treat these as specimen trees.

Keith Majors

Help Wanted, continued from page 1

Qualifying communities will be presented with the award and will have the opportunity to take a photo with a state leader, often the Governor. The hope is that the award will be a source of community pride. *Tree City USA* applications can be found on the DNR Forestry Bureau's website (www.iowadnr.com/forestry/treecity.html) and should be submitted as soon as possible. Completed applications should be returned to: Randy Cook, Forestry Bureau/ Iowa DNR, Wallace State Office Building, Des Moines, Iowa 50319-0034. Please contact Randy Cook (515-281-5600, Randy.Cook@dnr.state.ia.us) with any questions.

TREE CITY USA

Trees, Injury, and Stress

By Paul Wray, ISU Forestry Extension

Every year in Iowa, ornamental woody plants, trees and shrubs die without showing any glaring and obvious causes. In addition, insects and diseases cause their share of decline and mortality in trees.

The responses by trees and by people to stress and the results of stress are somewhat similar. In some cases, if the trees are stressed or if they have been wounded (a major cause of tree stress), they may be more susceptible to damage caused by insects and diseases. Stresses in trees may be caused by natural factors and conditions or through the activities of man or domesticated animals. These factors (Table 1) may be chronic (recurring and lasting for a long time) or acute (immediate impact). Examples of chronic damage are wet soils caused by site selection, soil compaction, or poor nutrition; acute damage includes flooding, freezing conditions, severe construction damage, and deer browsing.

Tree stresses may be very dramatic and obvious or in many cases are not easily observed or recognized. Obvious stresses may include basal damage or storm damage; stresses from grade changes, soil compaction or pollution are not very visible.

Trees often do not display immediate responses to stresses because of their accumulated growth habit. However, with stresses come several changes within the tree depending on the damage caused by the stress. In some cases, the process of photosynthesis, which is the primary supply of carbohydrates for all tree functions, is reduced and the tree's stored food reserves are depleted. When root systems are damaged by construction, compaction, or poor drainage, they cannot supply adequate water and nutrients for the tree's growth and survival. When this happens, often the tree is unable to produce sufficient carbohydrates and growth-regulating chemicals. When trunks or stems are damaged, the movement of carbohydrates to where they are needed for growth and function is stopped, and may result in death of roots or other growing points of the tree. The end result of these reduced processes is that, at best, the tree operates at less than peak efficiency and in many cases it begins a downward spiral of all of its growth functions.

As stresses continue, the tree does eventually exhibit external symptoms. Annual incremental growth is reduced and becomes significantly less than normal. Leaves may be fewer in number and smaller in size. Sometimes, the tree produces excess fruit or seed as a survival mechanism. The tree may exhibit summer scorch symptoms because of insufficient water provided to the leaves during dry weather. With continued stresses, branches begin to die, and at the same time the root system is reduced because the crown is producing inadequate food for good root expansion and

Table 1: Some Causes of Stress in Trees and Shrubs

Environmental	Man Caused	Animal	Plant
Nutrient deficiency	Pollution	Nematodes	Viruses
Drought	Mechanical damage	Insects	Fungi
Wind	Soil compaction	Birds	Vines
Flood	Excess water	Deer	Weeds
Freezing conditions	Excess fertilizer	Rabbits	Bacteria
Sun Scorch	Improper pruning	Mice	Mycoplasmas

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Forest Health Update

By Steve Pennington, Iowa DNR Forest Health Coordinator

This edition of the Forest Health Update dwells on two "new" forest stressors, Emerald Ash Borer (EAB) and Sudden Oak Death (SOD). They are "new" in that in 2003 we were not checking for these in Iowa. However, 2004 saw us doing some very serious monitoring, and the following is a summary.

EAB: This insect does, of course, have great potential to damage rural and urban forests. The insect has not been discovered in Iowa - however, it is spreading in Michigan and has now been confirmed in both Ohio and Indiana, indicating that it is on the move. So, deciding that it is best to err on the side of safety, we began systematic annual checking for EAB this summer. The Bureau of Forestry visited 32 Iowa cities with forest product mills (veneer, sawmills, pallet mills, pallet recycling facilities, fuel wood facilities) and canvassed for symptomatic ash. Also, under contract with the Bureau of Forestry (via a US Forest Service grant), ISU Extension personnel visited over 200 cities canvassing for symptomatic ash, especially in landscape plantings less than 5 years old and sites that have previously been studied for ash yellows. In total, 2,078 ash trees were inspected, and we were glad that EAB was not detected.

SOD: While this new pathogen may or may not be able to survive on oaks in Iowa, again it was decided that it is best to err on the side of safety, so we also began early checking for this stressor this summer. SOD was not found in our monitoring. However, the office of the State Entomologist and the USDA (Animal and Plant Health Inspection Service) traced and disposed of shipments of rhododendron from infected sites in Oregon that had arrived at landscape retail stores in Iowa. Then, cooperating with the US Forest Service, the Forestry Bureau followed up on this by checking native woodlands near these stores. Twelve wooded sites were inspected, and over 100 leaf, twig and bark samples were shipped to laboratories at Ohio State University and Starkville, Mississippi.

It is fortunate that neither EAB nor SOD were found in Iowa this year. However, considering the potential of these two forest stressors, the intent is to continue this type of vigorous surveillance every year.

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growth. These processes perpetuate a downward spiral, usually resulting in the continued decline and eventual death of the tree over a period of 2-15 years. In most cases, once the tree has tipped the balance of not providing sufficient carbohydrates for continued growth, it cannot recover.

If the physical stresses do not kill the tree, it will often be exposed to more stresses from opportunistic diseases and insect attacks. These biotic attacks may speed up and/or complete the demise of the tree.

Much of the survival, growth and health of the woody vegetation in our landscapes is dependent on the homeowner/manager working to prevent stress and provide an optimal growing environment for the tree. This may begin with plant selection to ensure that the selected plant will perform

Dieback can be caused by a poor planting site and lack of an adequate root system.

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Community Tree Health Problems

Identify the Problem before Taking Action

By Mark Vitosh, Iowa DNR District Forester

Trees are a very valuable resource to communities and homeowners, and when trees appear ill folks often try to take action before they really know what the problem is.

Recent Situation: During the summer of 2004 a number of large, majestic oak trees in an Eastern Iowa neighborhood were showing dieback or decline symptoms. In the early part of the summer an out-of-town company claiming to be tree experts started working through the neighborhood selling a treatment to improve the health of these oaks. The company claimed that the majority of the large oaks in the neighborhood had the same problem, without ever looking at individual trees and really determining the cause or causes of the dieback. The bottom line in this situation is many landowners in the neighborhood spent hundreds and even thousands of dollars to treat a problem that many of the trees did not have.

If you have a tree health problem in your community, consider the following steps before you take action:

- **Identify specific tree species with the problem.** This is important because most disease and insect problems are specific to particular plant species.
- **Evaluate symptoms and patterns.** Describe what is happening with the tree (i.e. wilting leaves, dying branches, curling leaves, falling leaves, etc.), and describe the time frame in which these things occurred. **Note:** Take pictures of problems and symptoms when possible.
- **Evaluate the site.** What are the growing conditions (i.e. soil, aspect, drainage, etc.)? What activities have occurred on the site (i.e. construction)? Many times the site conditions cause trees to become stressed, making them more susceptible to insect and disease attack.
- **Get help.** Work with your local city forester or horticulturist, Iowa State University Extension Office, Department of Natural Resources District Forester, nursery, tree service, or any other plant specialist in your community to diagnose the problem with the tree or trees.
- **Have a community or neighborhood meeting.** If there is a community or neighborhood-wide problem, consider having a meeting utilizing local specialists, Iowa State University representatives, and/or Iowa Department of Natural Resource/Forestry Bureau representatives to explain the situation and management options to local residents. A meeting will help reduce the circulation of inaccurate information.

Trees, Injury, and Stress, continued from page 4

well on the specific site and soil. Avoid injuries to trees and their expansive root systems during construction or when working around trees. Don't over fertilize trees; excessive leaf production often results in moisture stress during hot, dry periods. Avoid basal damage to tree trunks because this is the direct connection from the roots to the leaf tissue. Lawnmowers are still one of the major causes of damage to trees. Use proper pruning techniques, and avoid pruning during the spring period of leaf expansion. Use mulches to reduce temperature and moisture extremes. Use caution when using lawn irrigation systems; trees often suffer because of too frequent watering resulting in soils which are too wet for good root growth.

Community Profile

Yards for Kids

In a slight deviation from the usual format, this issue will profile a *program* taking place in the community of Cedar Falls. *Yards for Kids* was started by Dr. Kamyar Enshayan to reduce the level of pesticide use. Enshayan is an Adjunct Assistant Professor and Program Manager with the University of Northern Iowa's Center for Energy and Environmental Education, and a member of the Cedar Falls City Council. And while the *Yards for Kids* program probably would not fall under the heading of Urban and Community Forestry, it fits nicely in the context of the urban ecosystem and its relationship with people.

According to the *Yards for Kids* website, pesticides can include weed killers, insecticides, and fungicides, and are designed to kill or damage some sort of living pest. Most of us have probably used some form of pesticide, or surely have seen them used, whether on a lawn or elsewhere. While the intent in applying a pesticide is to target a specific organism or group of organisms, sometimes the target is not the only recipient of the chemical. Pesticides sprayed at a school, park, or backyard can be tracked into a house days after being applied. So if a person doesn't contact the pesticide where it was applied, there is still an opportunity for indirect contact. In addition, aerial drift from a neighbor's yard or flea and tick treatments for pets are ways that we can come in contact with pesticides. Thinking on an ecosystem level, pesticides will eventually end up contributing to the fouling of our surface waters (and those downstream), which we use for drinking, swimming, and in other direct-contact ways.

According to Enshayan, the *Yards for Kids* program was started to reduce the amount of pesticides that are available to be ingested, inhaled, absorbed, and otherwise contacted by children. Children are especially susceptible to the harmful effects of pesticides, which can lead to health problems such as an increase in birth defects. Enshayan encourages us to keep this in mind when deciding whether or not to apply pesticides.

Yards for Kids has primarily focused on education and awareness, and has conducted workshops and distributed yard signs like the one shown on this page. In addition, the program has partnered with such organizations as the City of Cedar Falls Park Division, Covenant Health System and its affiliates, City of Waterloo, Cedar Falls Community Schools, Cedar Falls and Waterloo Public Libraries, the University of Northern Iowa Physical Plant, and a couple dozen businesses and churches to eliminate or significantly reduce their use of pesticides. An added benefit is that the groups have saved a significant amount of money by not purchasing or applying the pesticides.

For example, over the seven years that they have been participating in the program, the Cedar Falls Park Division has reduced their pesticide use by 456 gallons and saved $41,356 as a result. Park Division Manager Mark Ripplinger summarized by saying, "Dr. Enshayan has truly made a difference in the City of Cedar Falls and surrounding communities by promoting the *Yards for Kids* program and responsible pesticide application to promote health and welfare for kids."

Even with the wide array of reasons to avoid using pesticides, there are some who will still resist. Why? For many, the answer is their original objective for using the chemicals: the quest for the perfect lawn. However, *Yards for Kids* encourages reevaluating the importance of flawless turf. They also suggest several non-pesticide ways of combating weeds (such as mowing a little higher (3-4")) and learning to tolerate a few weeds for the sake of our health. In addition, by reducing the use of broadleaf pesticides we can decrease the risk of harming the largest broadleaf plants - trees. More information, suggestions for your lawn, and available yard signs can be found on their website - www.uni.edu/yardsforkids.

In a Nutshell

One Tree, Many Hands

The 2005 Midwestern Chapter of the International Society of Arboriculture (MWISA) Annual Conference is being held in Bettendorf from February 2-4, 2005. The program features Dr. Gary Johnson, University of Minnesota; Dr. John Ball, University of South Dakota; Dr. Tom Green, Western Illinois University; Dr. Fredrick Miller, Joliet Junior College; Dr. Rex Bastian, The Care of Trees; and Dr. Paul Wray, Dr. Jeff Iles, and Dr. Jan Thompson of Iowa State University. Successful establishment of urban trees is dependent upon nursery production techniques, design principles, installation, maintenance, and mature care. By working together, we can understand everyone's role for the benefit of trees.

Full registration includes one reception, one lunch, one banquet, 2 continental breakfasts, and refreshments at breaks. MWISA Chapter members and Iowa Arborist Association members may register at the early rate of $235. ISA member (not Midwest Chapter) early rate is $265, Non-member early rate is $295.

Keith Majors is the Conference Chair and can be reached at 563-326-7896 or by e-mail at KLM@ci.davenport.ia.us.

NOTE: *This newsletter can be found online at either of two websites: www.forestry.iastate.edu/iucfc/ OR www.iowadnr.com/forestry/.*

Calendar of Events

January 11
Council Meeting
Ames
randy.cook@dnr.state.ia.us

February 2-4
Midwest ISA Annual Conference
Bettendorf
klm@ci.davenport.ia.us

March 12
Forest Stewardship Conference (NE Iowa)
Sinsinawa, WI
phw@iastate.edu

March 15-16
49th Annual Shade Tree Short Course
Ames
iles@iastate.edu

March 17-20
Iowa Flower, Lawn and Garden Show
Des Moines
randy.cook@dnr.state.ia.us

April 2
Forest Stewardship Conference (SE Iowa)
Keokuk
phw@iastate.edu

April 7
IUCFC Awards Luncheon
Des Moines
randy.cook@dnr.state.ia.us

Iowa Urban and Community Forestry Council members:

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Don Brazelton, Iowa Assn CCB
Shannon Ramsay, Trees Forever
Patty Peterson, Trees Forever
Paul Wray, ISU Forestry Extension
Jan Thompson, ISU NREM
Jeff Iles, ISU Horticulture
Chris Feeley, ISU Forestry Extension
Mark Vitosh, IADNR
Jim Mason, Country Landscapes
Rick Tagtow, NICC
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Grant Announcement

The Department of Natural Resources (DNR) will make available a grant for communities for projects taking place during the spring of 2005. The DNR Forestry Bureau and Keepers of the Land *Community Improvement through Healthy Trees* grant will make available approximately $60,000 of USDA Forest Service, State and Private Forestry funds and $10,000 of DNR Keepers of the Land funds for tree plantings as well as maintenance and improvement projects. Qualifying maintenance expenditures will include such things as the purchase of small-sized pruning equipment and scholarships to assist in training for municipal employees and/or volunteers. Communities will be eligible for dollar-for-dollar matching grants of $500 - $2,500. Special consideration will be given to projects focusing on outreach efforts in low to moderate-income neighborhoods and communities. If interested in applying for the grant, please download an application from www.iowadnr.com/forestry/ and then “Community and Yard Trees”. Applications will be due by February 21, 2005. Please contact Matt Brewer (515-242-6892, Matt.Brewer@dnr.state.ia.us) with questions or to request a paper copy of the application.